

Health Belief Model and Risk-Seeking Behavior as Indicators of Chosen Listening Levels of Youth

Background

- Noise-induced hearing loss (NIHL) is the second most common form of hearing loss, a result of acute and extremely loud sounds or long exposure to moderate sound levels. Its damage is irreversible.
- 12.5% of American children 6-19 possess a hearing loss. Children aged 12-19 have a significantly higher prevalence of hearing loss than children aged 6-11 years old, suggesting that something is responsible for that change within this time period (Niskar et al 2001).
- There is an abundance of research linking personal listening devices (PLDs) to NIHL. Apple had sold 275 million iPods by 2010.
- Guidelines for safe listening habits for children are very general (AAP 2010). Furthermore, listening to a PLD is a private experience, such that listeners are not accountable to anyone else when they have earbuds in.
- The question is not *if* one can develop hearing loss from a PLD, but rather why individuals choose to listen at high volumes and whether general concern and preventive measures are necessary (Fligor 2009).

Tools for understanding

- The Health Belief Model (HBM) – describes the human tendency to take action against a harmful behavior only if the benefits to do so outweigh the negatives of not making a change.
 - Five Subscales: susceptibility, perceived severity, benefits, and barriers, and self-efficacy (Rosenstock & Stretcher 1997).
- Global Risk Taking Assessment- examines the relationship between injuries and risk-taking habits (Westaby & Lee 2003).

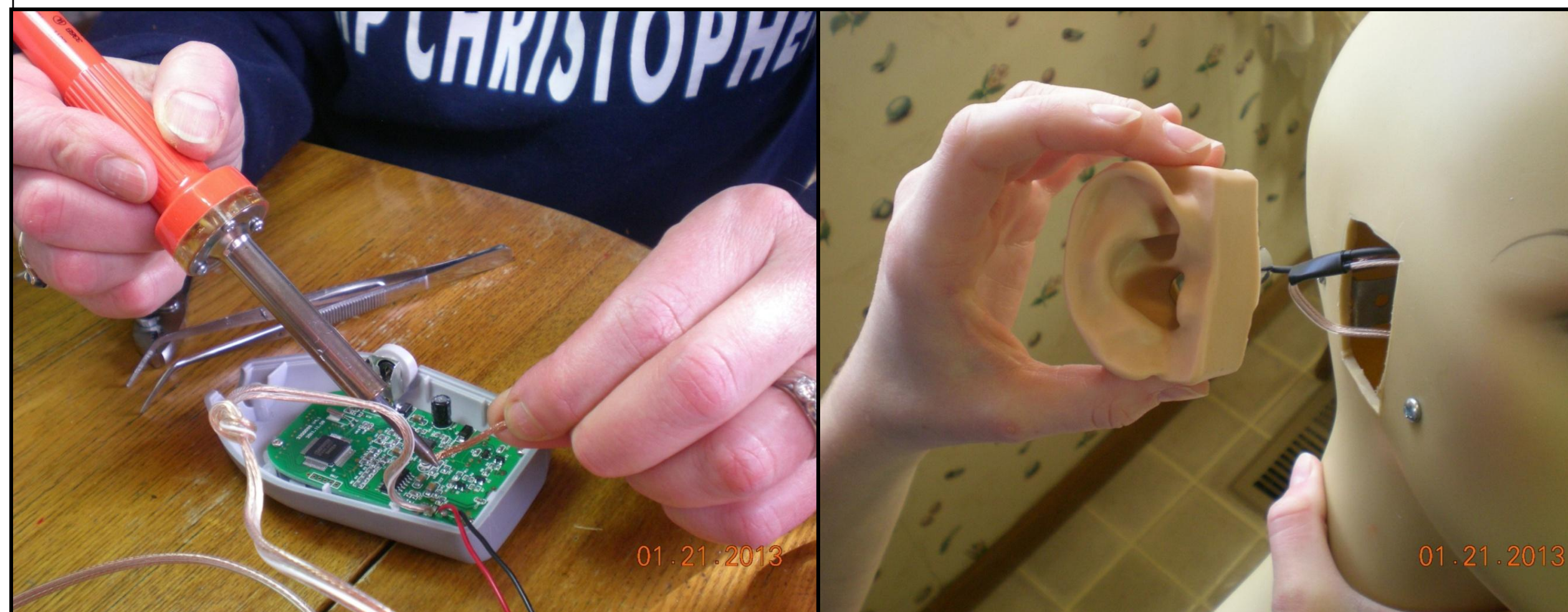
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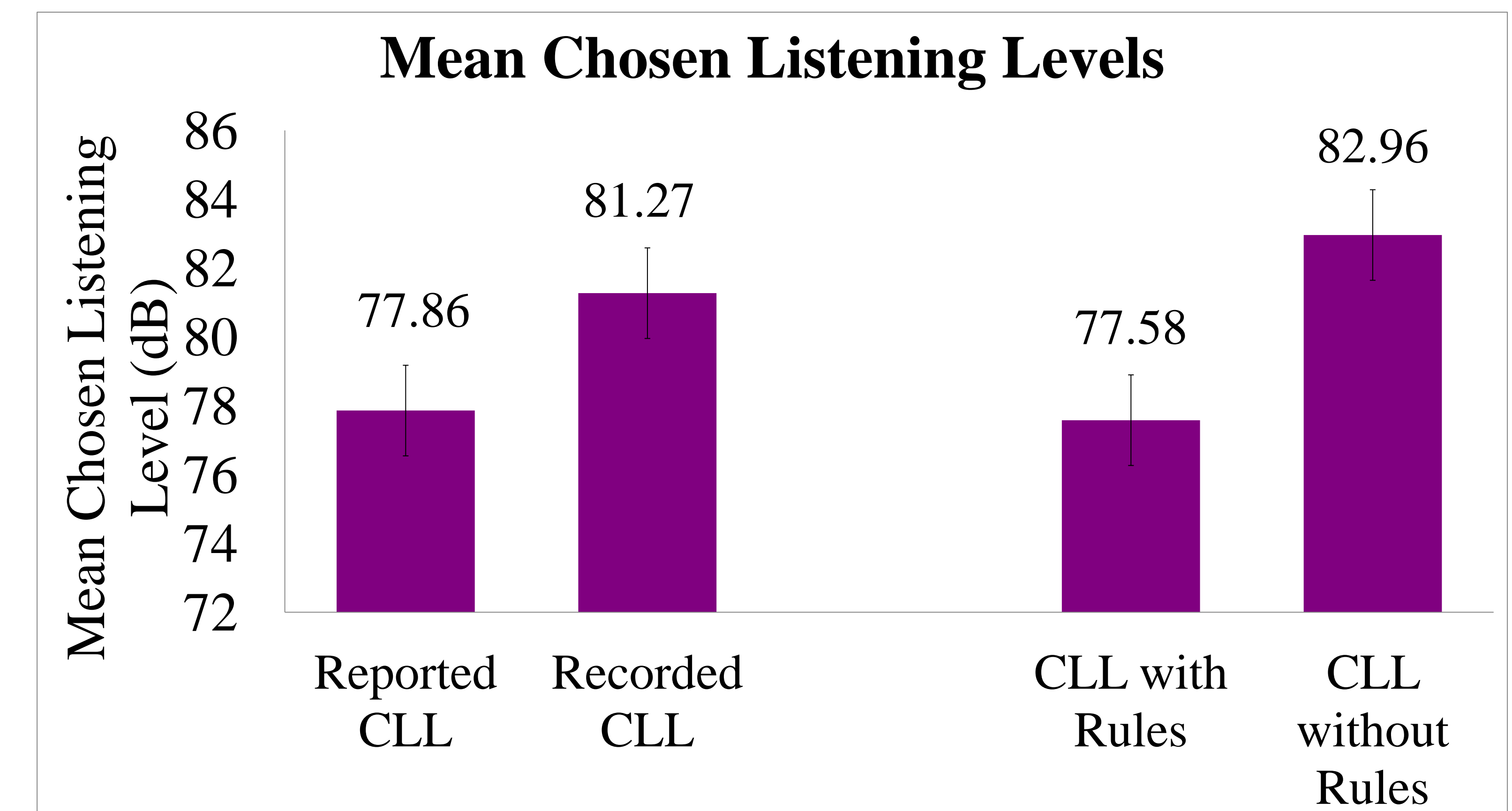
Participant Data from Incarnation Elementary	37 males 47 females	Mean Age: 11.25 years
Preferred headphone: Earbuds = 65.2% Earphones = 26.2%	Rules at home regarding PLD use? Yes = 31% No = 33.3% I don't know = 35.7%	Favorite Type of Music: Pop/Top 40 = 65.2% Rock = 9.5%

Methods

- Students: listened to one song on an iPod for 60 seconds, setting the volume bar from zero to any volume. This volume was recorded and converted to the recorded chosen listening level (CLL) via formula
- Completed a brief demographic survey and 5-item Global Risk Taking Assessment, two part Listening Habits Questionnaire about listening habits and preferences, as well as 26 items related to the Health Belief Model.
- Data Analysis:
 - SPSS: Descriptive statistics, Pearson correlations, linear regression, independent samples t-test



Results



- No significant difference in the CLLs of boys and girls
- No significant correlation between Global Risk Taking Assessment and CLLs, $r = .026$, $p = .061$
- Health Belief Model is a significant predictor of CLLs ($R^2 = .228$, $F(5,75) = 4.422$, $p = .001$)
 - Three individual aspects of the HBM significantly predict CLLs: barriers ($r = .347$, $p = .001$), susceptibility ($r = .224$, $p = .042$) and benefits ($r = -.245$, $p = .026$)

Discussion

- This research has important implications for our ability to take preventative action against NIHL
- Children need to be given rules from home about how to safely listen and have a meaningful discussion about the risk of loud volumes.
- Listening to music ought to be fun and safe- there are many resources online regarding safe practices, and children could benefit from exploring these websites at school or with their parents